

Pouring a heat of steel from a 25-ton electric furnace. The plant has three melting furnaces, with capacities up to 50,000 pounds per heat, for the production of electric steel, in ingots and castings. A 50-pound induction vacuum melting furnace is available for special purpose work.

Melting the Steel is Only the Beginning

Pouring a heat of steel is possibly the most spectacular job we do, but it is just one of the many things we do. For in this completely integrated machinery manufacturing plant, largest in the west, making steel ingots and castings is only the beginning. Next follow such other operations as forging, heat treating, plating, welding, and assembling, by which we manufacture steel into a multitude of useful products.

Our principal activity is the production of oil field machinery and equipment which, painted in the familiar "National Blue," is used in every major oil producing area in the free world. But, in addition, the plant is geared to the manufacture of heavy machinery and of maintenance and operating equipment for many basic industries such as steel, aluminum, mining, and cement. Other products include Ordnance material and aircraft parts, as well as forgings, castings, and machinery for dozens of industrial uses.

Established in 1912 by the Union Tool Company, as the first industry in the "dream city" planned the year before by Jared Torrance, the plant became a part of The National Supply Company in 1920. Like the city, it has enjoyed a steady growth and now occupies a 39-acre tract in the area extending from Border Avenue to Western Avenue and from Carson Street to 213th Street. There are approximately 1,500 employees, with a variety of skills.

The plant has 33 principal buildings, with more than 700,000 square feet of covered floor space. Included are the administration and general office buildings, a cafeteria, a hospital, and a club room, in addition to the buildings devoted to manufacturing operations. An extensive program of plant improvements is now under way.

Oil Field Machinery and Equipment: The Torrance plant was a pioneer in the development of rotary drilling which revolutionized drilling methods throughout the world. Today the plant is the leading producer of machinery and equipment for deep drilling, ranging in depth from 5,000 feet to more than 20,000 feet. Over a period of years, the world's records for deep drilling have been established repeatedly by Torrance-made drilling rigs.

Because components of a big rig often come from the manufacturing plants of many companies, in various parts of the country, National Supply's customers often request a "rig-up" at the Torrance plant, and pay for it, to minimize difficulties and delays when the rig reaches its destination.

Torrance-made National Supply products for drilling use include the draw works, rotaries, drive groups, crown blocks, traveling

blocks, hook-blocks, drilling controls, drill collars, Kellys, elevators, spiders, connectors, and wire line anchors. The plant also produces the National Plunger Lift, an ingenious device that utilizes the gas pressure in a well to lift oil from the well.

Industrial Products Division: The plant's unusual combination of facilities, together with the "know-how" of our personnel, serve to excellent advantage in the manufacture of industrial products. In the machine shop, especially, the large number of machines available, and the special nature of some of them, permits manufacture of an exceptionally wide variety of products, including precision bearings, aircraft structural parts, and large shafting. Among the unusual machines are:

A trepanning lathe 124 feet long for work requiring high speed, deep hole, precision boring. Work pieces up to 50 feet long are trepanned with a normal setup.

A 7-inch spindle, horizontal boring, drilling, and milling machine, one of the largest machine tools of its kind on the Pacific Coast.

Two 60-inch spiral bevel gear generators and testing equipment.

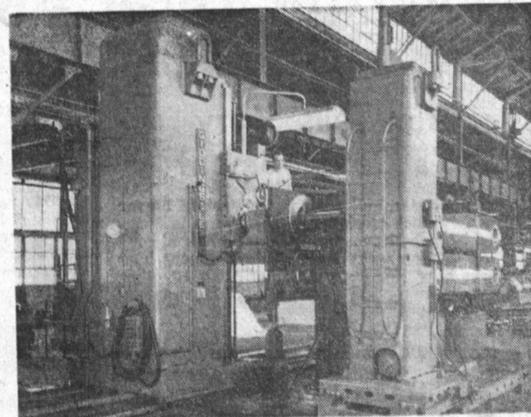
The plant is noted for the extra large and unusual jobs it has performed. But it also is equipped to turn out quantities of precision-made products of normal size and design. Quality work is insured by careful inspection at various stages.

The National Supply Company: The Torrance plant is one of six plants owned and operated by The National Supply Company, which is the world's largest manufacturer and distributor of oil field machinery and equipment. Other plants are at Ambridge and Etna, Pennsylvania; Gainesville and Houston, Texas; and Toledo, Ohio.

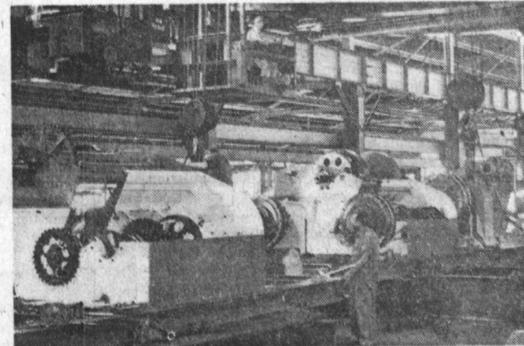
Founded in 1894, National Supply today represents a successive consolidation of more than a dozen companies: the earliest dating back to 1828. Its history is inseparably associated with that of the oil industry.

National Supply is an independent company, owned by more than 10,000 stockholders. It has 9,000 employees. The company's assets are over \$100 million. Sales in 1956 exceeded \$282 million.

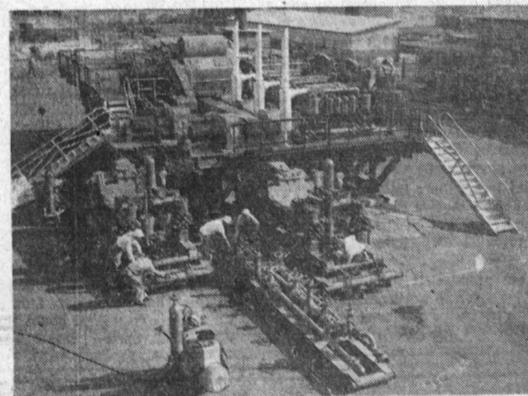
Often referred to as "storekeeper to the oil country," National Supply operates 128 oil field supply stores, located throughout the United States and Canada and in Venezuela. One of these stores, and the headquarters of the California division, which operates the company's stores in this state, are located on the Torrance plant property.



This horizontal boring, drilling, and milling machine has a working area of 10 by 12 feet. The workpiece remains stationary, with a 7-inch main spindle traversing past it.



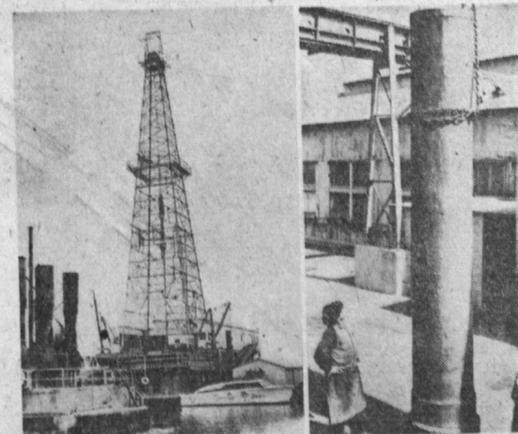
View of assembly department, with several draw works for drilling rigs in various stages of construction. Machine shop, now 1,000 feet long, is being extended 40 feet as part of current plant improvement program.



This big rig was "rigged up" and test-operated prior to shipment to Chile. Torrance-made National Supply rigs are used in oil fields throughout the entire free world.



Al Templeton, supervisor of the pattern shop, has been employed continuously since 1910, starting with the Union Tool Company two years before it established its plant in Torrance. Over 100 employees have completed 25 years or more on the job; more than half of the employees have been at the plant for at least five years.



This barge-mounted rig, using a Torrance-made National Supply draw works, established the world's depth record at 22,570 feet in 1955. The two previous depth records, 20,521 feet in 1949 and 21,482 feet in 1953, also were made with National rigs.

Two employees of the forge shop look up at a hollow forged cylinder, representative of the unusual jobs performed by the Industrial Products Division. Weighing 26,700 pounds, it will be used as a ram for a scrap baler.

THE **TORRANCE PLANT**
NATIONAL SUPPLY COMPANY

